

**In the Claims:**

Please amend the claims as follows:

Claims 1-36 (Cancelled)

37. (Previously Amended) The process of Claim 157 wherein administration is via parenteral routes selected from intramuscular and subcutaneous.

38. (Previously Amended) The process of Claim 157 wherein administration is via a topical route.

39. (Previously Amended) The process of Claim 157 wherein administration is via oral routes.

40. (Previously Amended) The process of Claim 157 wherein administration is via nasal, transdermal, rectal, or vaginal routes.

41. The process of Claim 157 wherein administration is given in the form of an oral or nasal inhalant for the respiratory tract.

42. (Previously Amended) A process for preparing controlled release compositions characterized by burst-free, sustained, programmable release of biologically active agents, comprising: dissolving biodegradable poly(lactide/glycolide), in uncapped form and biodegradable poly(lactide/glycolide) in end-capped form in methylene chloride, and dissolving a biologically active agent or active core in water; adding the aqueous layer to the polymer solution and emulsifying to provide an inner water-in-oil (w/o) emulsion; stabilizing the w/o emulsion in a solvent-saturated aqueous phase containing an oil-in-water (o/w) emulsifier; adding said w/o emulsion to an external aqueous layer containing oil-in-water emulsifier to form a ternary emulsion; and stirring the resulting water-in-oil-in-water (w/o/w) emulsion for sufficient time to remove said solvent, and rinsing hardened microcapsules with water and lyophilizing said hardened microcapsules.

43. (Original) The process of Claim 42 wherein a solvent-saturated external aqueous phase is added to emulsify the inner w/o emulsion prior to addition of the external aqueous layer, to provide microcapsules of narrow size distribution range between 0.05-500um.

44. (Original) The process of Claim 42 wherein a low temperature of about 0-4 degree C is provided during preparation of the inner w/o emulsion, and a low temperature of about 4-20 degree C is provided during preparation of the w/o/w emulsion to provide a stable emulsion and high encapsulation efficiency.

45. (Previously Amended) A process for preparing controlled release characterized by burst-free, sustained, programmable release of biologically active agents, comprising: dissolving biodegradable poly(lactide/glycolide) in end-capped form in methylene chloride, and dissolving a biologically active agent or active core in water; adding the aqueous layer to the polymer solution and emulsifying to provide an inner water-in-oil emulsion; stabilizing the w/o emulsion in a solvent-saturated aqueous phase containing a oil-in-water (o/s) emulsifier; adding said w/o emulsion to an external aqueous layer containing oil-in-water emulsifier to form a ternary emulsion; and stirring a resulting water-in-oil-water (w/o/w) emulsion for sufficient time to remove said solvent; and rinsing hardened microcapsules with water; and lyophilizing said hardened microcapsules.

46. (Original) The process of Claim 42 wherein a 100/0 blend of uncapped and end-capped polymer is used to provide release of the active core in a continuous and sustained manner without a lag phase.

47. (Original) The process of Claim 45 wherein a solvent-saturated external aqueous phase is added to emulsify the inner w/o emulsion prior to addition of the external aqueous layer, to provide microcapsules of narrow size distribution range between 0.05-500um.

48. (Original) The process of Claim 45 wherein a low temperature of about 0-4 degree C is provided during preparation of the inner w/o emulsion, and a low temperature of about 4-20 degree C is provided during preparation of the w/o/w emulsion to provide a stable emulsion and high encapsulation efficiency.

49. (Previously Amended) A method for the protection against infection of a mammal by pathogenic organisms comprising administering orally to said mammal an immunogenic amount of an

immunostimulating composition consisting of an antigenic synthetic peptide encapsulated within a poly(lactide/galactide) matrix.

50. (Original) The method of Claim 49 wherein the poly(lactide/glycolide) is a blend of uncapped and end-capped forms, in ratios ranging from 100/0 to 1/99.

51. (Original) The method of Claim 49 wherein the poly(lactide/glycolide) is a blend of uncapped and end-capped forms in ratios ranging from 90/10 to 40/60.

52. (Original) The method of Claim 49 wherein the infection is a bacterial infection.

53. (Original) The method of Claim 49 where the synthetic peptide contains an epitope selected from the group consisting of CFA/I pilus protein T-cell epitopes, B-cell epitopes or mixtures thereof.

54. (Original) The method of Claim 49 wherein the infection is a viral infection.

55. (Original) The method of Claim 49 wherein the infection is parasitic infection.

56 (Original) The method of Claim 49 wherein the infection is a fungal infection.

57 (Previously Amended) The method of Claim 52 wherein the bacterial infection is caused by a bacteria selected from the group consisting of Salmonella typhi, Shigella Sonnei, Shigella Flexneri, Shigella dysenteriae, Shigella boydii, Escheria coli, Vibrio cholera, Group D-2, Group E, Group G, Group I, Group 1, Listeria, Erysipelothrix, Mycobacterium, Aerobic pathogenic, Actinomycetales, Enterobacteriaceae, Vibrio, aeromonas, Plesiomonas, Helicobacter, W. succinogenes, Acineto bacter spp., Foavobacterium, Pseudomonas, Legionella, Brucella, Haemophilus, Bordetalla, Mycoplasmas, Gardnerella, Streptobacillus, Spirillum, Calymmatobacterium, Clostridium, Treponema, Borrelia, Leptospira, Anaerobic Gram-negative Bacteria including bacilli and Cocci, Anaerobic gram-Positive Nonsporeforming Bacilli and Cocci, yersinia, staphylococcus, clostridium, Enteroccus, Streptococcus, Aerococcus, Planococcus, Stomatococcus, Micrococcus, Lactoccus, Germella, Pediococcus, Leuconostoc, Bacillus, Neisseria, Branhamella, Coryne bacterium, campylobacter, Arcanobacterium haemolyticum, Rhodococcus spp., Rhodococcus, Group A-4.

58. (Previously Amended) The method in accordance with Claim 49 comprising administering orally to said mammal an immunogenic amount of a pharmaceutical composition consisting of an antigenic synthetic peptide in the amount of .1 to 1%.

59. (Previously Amended) A vaccine for the immunization of a mammal against infection cause by pathogenic organisms prepared from the formulation of Claim 157.

60. (Original) The vaccine according to Claim 59 wherein the polymeric substance is poly(DL-lactide-co-glycolide).

61. (Original) The vaccine according to Claim 60 wherein the relative ratio between the lactide and glycolide (L/G) component is within the range of 40/60 to 0/100.

62. (Original) The vaccine according to Claim 61 wherein the relative ratio between the amount of lactide and glycolide component is within the range of 90/10 to 40/60.

63. (Original) A vaccine according to Claim 62 wherein the pathogenic organisms are bacterial.

64. (Original) A vaccine according to Claim 62 wherein the pathogenic organisms are viral.

65. (Original) A vaccine according to Claim 62 wherein the pathogenic organisms are fungal.

66. (Original) A vaccine according to Claim 62 wherein the pathogenic organisms are parasitic.

67. (Currently Amended) The vaccine according to Claim 63 wherein the antigenic synthetic peptide is selected from the group consisting essentially of Synthetic Peptides Containing CFA/I Pilus Protein T-cell Epitopes (Starting Sequence # given)

4(Asn-Ile-Thr-Val-Thr-Ala-Ser-Val-Asp-Pro) (SEQ ID NO: 8),

8(Thr-Ala-Ser-Val-Asp-Pro-Val-Ile-Asp-Leu) (SEQ ID NO: 9),

12(Asp-Pro-Val-Ile-Asp-Leu-Leu-Gln-Ala-Asp) (SEQ ID NO: 10),

15(Ile-Asp-Leu-Leu-Gln-Ala-Asp-Gly-Asn-Ala) (SEQ ID NO: 11),

20(Ala-Asp-Gly-Asn-Ala-Leu-Pro-Ser-Ala-Val) (SEQ ID NO: 12),

26(Pro-Ser-Ala-Val-Lys-Leu-Ala-Tyr-Ser-Pro) (SEQ ID NO: 13).

72(Leu-Asn-Ser-Thr-Val-Gln-Met-Pro-Ile-Ser) (SEQ ID NO: 14),  
78(Met-Pro-Ile-Ser-Val-Ser-Trp-Gly-Gly-Gln) (SEQ ID NO: 15),  
87(Gln-Val-Leu-Ser-Thr-Thr-Ala-Lys-Glu-Phe) (SEQ ID NO: 16),  
126(Ala-Gly-Thr-Ala-Pro-Thr-Ala-Gly-Asn-Tyr) (SEQ ID NO: 17), and  
133(Gly-Asn-Tyr-Ser-Gly-Val-Val-Ser-Leu-Val) (SEQ ID NO: 18), and

mixtures thereof;

Synthetic Peptides Containing CFA/I Pilus Protein B-cell (antibody) Epitopes

(Starting Sequence # given)

3(Lys-~~Asn~~Asn-Ile-Thr-Val-Thr-Ala-Ser-Val) (SEQ ID NO: 19),  
11(Val-Asp-Pro-Val-~~Ile~~Ile-Asp-Leu-Leu-Gln-Ala-Asp) (SEQ ID NO: 20),  
22(Gly-Asn-Ala-Leu-Pro-Ser-Ala-Val) (SEQ ID NO: 32),  
32(Ala-Tyr-Ser-Pro-Ala-Ser-Lys-Thr-Phe-Lys-Thr-Phe-  
Glu-Ser-Tyr-Arg-Val) (SEQ ID NO: 21),  
32(Ala-Tyr-Ser-Pro-Ala-Ser-Lys-Thr-Phe) (SEQ ID NO: 22),  
38(Lys-Thr-Phe-Glu-Ser-Tyr-Arg-Val) (SEQ ID NO: 23),  
66(Pro-Gln-Leu-Thr-Asp-Val-Leu-Asn-Ser) (SEQ ID NO: 24),  
93(Ala-Lys-Glu-Phe-Glu-Ala-Ala-Ala) (SEQ ID NO: 25),  
124(Lys-Thr-Ala-Gly-Thr-Ala-Pro-Thr) (SEQ ID NO: 26),  
127(Gly-Thr-Ala-Pro-Thr-Ala-Gly-Asn-Tyr-Ser) (SEQ ID NO: 27), and  
124(Lys-Thr-Ala-Gly-Thr-Ala-Pro-Thr-Ala-Gly-Asn-Tyr-  
Ser) (SEQ ID NO: 28), and mixtures thereof; and

Synthetic Peptides Containing CFA/I Pilus Protein T-cell and B-cell (antibody) Epitopes

(Starting Sequence # given)

3(Lys-Asn-Ile-Thr-Val-Thr-Ala-Ser-~~Val~~Val-Asp-Pro) (SEQ ID NO: 29),  
8(Thr-Ala-Ser-~~Val~~Val-Asp-Pro-~~Val~~Val-Ile-Asp-Leu-Leu-Gln-  
Ala-Asp) (SEQ ID NO: 30),  
11(~~Val~~Val-Asp-Pro-~~Val~~Val-Ile-Asp-Leu-Leu-Gln-Ala-Asp) (SEQ ID NO: 20),  
20(Ala-Asp-Gly-Asn-Ala-Leu-Pro-Ser-Ala-Val) (SEQ ID NO: 12),  
124(Lys-Thr-Ala-Gly-Thr-Ala-Pro-Thr-Ala-Gly-Asn-Tyr-  
Ser) (SEQ ID NO: 28), and  
126(Ala-Gly-Thr-Ala-Pro-Thr-Ala-Gly-Asn-Tyr-Ser) (SEQ ID NO: 31), and mixtures

thereof.

68. (Previously Amended) The vaccine according to Claim 67 wherein the bacteria is selected from the group consisting of Salmonella typhi, Shigella Sonnei, Shigella Flexneri, Shigella dysenteriae, Shigella boydii, Escheria coli, Vibrio cholera, Group D-2, Group E, Group G, Group I, Group 1, Listeria, Erysipelothrix, Mycobacterium, Aerobic pathogenic, Actinomycetales, Enterobacteriaceae, Vibrio, aeromonas, Plesiomonas, Helicobacter, W. succinogenes, Acineto bacter spp., Foavobacterium, Pseudomonas, Legionella, Brucella, Haemophilus, Bordetalla, Mycoplasmas, Gardnerella, Streptobacillus, Spirillum, Calymmatobacterium, Clostridium, Treponema, Borrelia, Leptospira, Anaerobic Gram-negative Bacteria including bacilli and Cocci, Anaerobic gram-Positive Nonsporeforming Bacilli and Cocci, yersinia, staphylococcus, clostridium, Enteroccus, Streptoccus, Aerococcus, Planococcus, Stomatococcus, Micrococcus, Lactoccus, Germella, Pediococcus, Leuconostoc, Bacillus, Neisseria, Branhamella, Coryne bacterium, campylobacter, Arcanobacterium haemolyticum, Rhodococcus spp., Rhodococcus, Group A-4.

69. (Currently Amended) The vaccine according to Claim 67 wherein the antigenic synthetic peptide is selected from the group consisting of

- 4(Asn-Ile-Thr-Val-Thr-Ala-Ser-Val-Asp-Pro) (SEQ ID NO: 8),
- 8(Thr-Ala-Ser-Val-Asp-Pro-Val-Ile-Asp-Leu) (SEQ ID NO: 9),
- 12(Asp-Pro-Val-Ile-Asp-Leu-Leu-Gln-Ala-Asp) (SEQ ID NO: 10),
- 15(Ile-Asp-Leu-Leu-Gln-Ala-Asp-Gly-Asn-Ala) (SEQ ID NO: 11),
- 20(Ala-Asp-Gly-Asn-Ala-Leu-Pro-Ser-Ala-Val) (SEQ ID NO: 12),
- 26(Pro-Ser-Ala-Val-Lys-Leu-Ala-Tyr-Ser-Pro) (SEQ ID NO: 13),
- 72(Leu-Asn-Ser-Thr-Val-Gln-Met-Pro-Ile-Ser) (SEQ ID NO: 14),
- 78(Met-Pro-Ile-Ser-Val-Ser-Trp-Gly-Gly-Gln) (SEQ ID NO: 15),
- 87(Gln-Val-Leu-Ser-Thr-Thr-Ala-Lys-Glu-Phe) (SEQ ID NO: 16),
- 126(Ala-Gly-Thr-Ala-Pro-Thr-Ala-Gly-Asn-Tyr) (SEQ ID NO: 17), and
- 133(Gly-Asn-Tyr-Ser-Gly-Val-Val-Ser-Leu-Val) (SEQ ID NO: 18), and mixtures thereof.

70. (Currently Amended) The vaccine according to Claim 69 wherein the antigenic synthetic peptide is 4(Asn-Ile-Thr-Val-Thr-Ala-Ser-Val-Asp-Pro) (SEQ ID NO: 8).

71. (Currently Amended) The vaccine according to Claim 69 wherein the antigenic synthetic peptide is 8(Thr-Ala-Ser-Val-Asp-Pro-Val-Ile-Asp-Leu) (SEQ ID NO: 9).

72. (Currently Amended) The vaccine according to Claim 69 wherein the antigenic synthetic peptide is 12(Asp-Pro-Val-Ile-Asp-Leu-Leu-Gln-Ala-Asp) (SEQ ID NO: 10).

73. (Currently Amended) The vaccine according to Claim 69 wherein the antigenic synthetic peptide is 15(Ile-Asp-Leu-Leu-Gln-Ala-Asp-Gly-Asn-Ala) (SEQ ID NO: 11).

74. (Currently Amended) The vaccine according to Claim 69 wherein the antigenic synthetic peptide is 20(Ala-Asp-Gly-Asn-Ala-Leu-Pro-Ser-Ala-Val) (SEQ ID NO: 12).

75. (Currently Amended) The vaccine according to Claim 69 wherein the antigenic synthetic peptide is 26(Pro-Ser-Ala-Val-Lys-Leu-Ala-Tyr-Ser-Pro) (SEQ ID NO: 13).

76. (Currently Amended) The vaccine according to Claim 69 wherein the antigenic synthetic peptide is 72(Leu-Asn-Ser-Thr-Val-Gln-Met-Pro-Ile-Ser) (SEQ ID NO: 14).

77. (Currently Amended) The vaccine according to Claim 69 wherein the antigenic synthetic peptide is 78(Met-Pro-Ile-Ser-Val-Ser-Trp-Gly-Gly-Gln) (SEQ ID NO: 15).

78. (Currently Amended) The vaccine according to Claim 69 wherein the antigenic synthetic peptide is 87(Gln-Val-Leu-Ser-Thr-Thr-Ala-Lys-Glu-Phe) (SEQ ID NO: 16).

79. (Currently Amended) The vaccine according to Claim 69 wherein the antigenic synthetic peptide is 126(Ala-Gly-Thr-Ala-Pro-Thr-Ala-Gly-Asn-Tyr) (SEQ ID NO: 17).

80. (Currently Amended) The vaccine according to Claim 69 wherein the antigenic synthetic peptide is 133(Gly-Asn-Tyr-Ser-Gly-Val-Val-Ser-Leu-Val) (SEQ ID NO: 18).

81. (Currently Amended) The vaccine according to Claim 67 wherein the antigenic synthetic peptide is selected from the group consisting of

3(Lys-~~Asn~~Asn-Ile-Thr-Val-Thr-Ala-Ser-Val) (SEQ ID NO: 19).

11(Val-Asp-Pro-Val-Ile-Asp-Leu-Leu-Gln-Ala-Asp) (SEQ ID NO: 20).

22(Gly-Asn-Ala-Leu-Pro-Ser-Ala-Val) (SEQ ID NO: 32).

32(Ala-Tyr-Ser-Pro-Ala-Ser-Lys-Thr-Phe-Lys-Thr-Phe-

Glu-Ser-Tyr-Arg-Val) (SEQ ID NO: 21),  
32(Ala-Tyr-Ser-Pro-Ala-Ser-Lys-Thr-Phe) (SEQ ID NO: 22),  
38(Lys-Thr-Phe-Glu-Ser-Tyr-Arg-Val) (SEQ ID NO: 23),  
66(Pro-Gln-Leu-Thr-Asp-Val-Leu-Asn-Ser) (SEQ ID NO: 24),  
93(Ala-Lys-Glu-Phe-Glu-Ala-Ala-Ala) (SEQ ID NO: 25),  
124(Lys-Thr-Ala-Gly-Thr-Ala-Pro-Thr) (SEQ ID NO: 26),  
127(Gly-Thr-Ala-Pro-Thr-Ala-Gly-Asn-Tyr-Ser) (SEQ ID NO: 27), and  
124(Lys-Thr-Ala-Gly-Thr-Ala-Pro-Thr-Ala-Gly-Asn-Tyr-Ser) (SEQ ID NO: 28), and mixtures thereof.

82. (Currently Amended) The vaccine according to Claim 81 wherein the antigenic synthetic peptide is 3(Lys-~~Ala~~Asn-Ile-Thr-Val-Thr-Ala-Ser-Val) (SEQ ID NO: 19).

83. (Currently Amended) The vaccine according to Claim 81 wherein the antigenic synthetic peptide is 11(Val-Asp-Pro-Val-Ile-Asp-Leu-Leu-Gln-Ala-Asp) (SEQ ID NO: 20).

84. (Currently Amended) The vaccine according to Claim 81 wherein the antigenic synthetic peptide is 22(Gly-Asn-Ala-Leu-Pro-Ser-Ala-Val) (SEQ ID NO: 32).

85. (Currently Amended) The vaccine according to Claim 81 wherein the antigenic synthetic peptide is 32(Ala-Tyr-Ser-Pro-Ala-Ser-Lys-Thr-Phe-Lys-Thr-Phe-Glu-Ser-Tyr-Arg-Val) (SEQ ID NO: 21).

86. (Currently Amended) The vaccine according to Claim 81 wherein the antigenic synthetic peptide is 32(Ala-Tyr-Ser-Pro-Ala-Ser-Lys-Thr-Phe) (SEQ ID NO: 22).

87. (Currently Amended) The vaccine according to Claim 81 wherein the antigenic synthetic peptide is 38(Lys-Thr-Phe-Glu-Ser-Tyr-Arg-Val) (SEQ ID NO: 23).

88. (Currently Amended) The vaccine according to Claim 81 wherein the antigenic synthetic peptide is 66(Pro-Gln-Leu-Thr-Asp-Val-Leu-Asn-Ser) (SEQ ID NO: 24).

89. (Currently Amended) The vaccine according to Claim 81 wherein the antigenic synthetic peptide is 93(Ala-Lys-Glu-Phe-Glu-Ala-Ala-Ala) (SEQ ID NO: 25).



90. (Currently Amended) The vaccine according to Claim 81 wherein the antigenic synthetic peptide is 124(Lys-Thr-Ala-Gly-Thr-Ala-Pro-Thr) (**SEQ ID NO: 26**).

91. (Currently Amended) The vaccine according to Claim 81 wherein the antigenic synthetic peptide is 127(Gly-Thr-Ala-Pro-Thr-Ala-Gly-Asn-Tyr-Ser) (**SEQ ID NO: 27**).

92. (Currently Amended) The vaccine according to Claim 82 wherein the antigenic synthetic peptide is 124(Lys-Thr-Ala-Gly-Thr-Ala-Pro-Thr-Ala-Gly-Asn-Tyr-Ser) (**SEQ ID NO: 28**).

93. (Currently Amended) The vaccine according to Claim 67 wherein the antigenic synthetic peptide is selected from the group consisting of

3(Lys-Asn-Ile-Thr-Val-Thr-Ala-Ser-Ba**lVal**-Asp-Pro) (**SEQ ID NO: 29**),

8(Thr-Ala-Ser-Ba**lVal**-Asp-Pro-Ba**lVal**-Ile-Asp-Leu-Leu-Gln-Ala-Asp) (**SEQ ID NO: 30**),

11(Ba**lVal**-Asp-Pro-Ba**lVal**-Ile-Asp-Leu-Leu-Gln-Ala-Asp) (**SEQ ID NO: 20**),

20(Ala-Asp-Gly-Asn-Ala-Leu-Pro-Ser-Ala-Val) (**SEQ ID NO: 12**),

124(Lys-Thr-Ala-Gly-Thr-Ala-Pro-Thr-Ala-Gly-Asn-Tyr-Ser) (**SEQ ID NO: 28**), and

126(Ala-Gly-Thr-Ala-Pro-Thr-Ala-Gly-Asn-Tyr-Ser) (**SEQ ID NO: 31**), and mixtures thereof.

94. (Currently Amended) The vaccine according to Claim 93 wherein the antigenic synthetic peptide is 3(Lys-Asn-Ile-Thr-Val-Thr-Ala-Ser-Ba**lVal**-Asp-Pro) (**SEQ ID NO: 29**).

95. (Currently Amended) The vaccine according to Claim 93 wherein the antigenic synthetic peptide is 8(Thr-Ala-Ser-Ba**lVal**-Asp-Pro-Ba**lVal**-Ile-Asp-Leu-Leu-Gln-Ala-Asp) (**SEQ ID NO: 30**).

96. (Currently Amended) The vaccine according to Claim 93 wherein the antigenic synthetic peptide is 11(Ba**lVal**-Asp-Pro-Ba**lVal**-Ile-Asp-Leu-Leu-Gln-Ala-Asp) (**SEQ ID NO: 20**).

97. (Currently Amended) The vaccine according to Claim 93 wherein the antigenic synthetic peptide is 20(Ala-Asp-Gly-Asn-Ala-Leu-Pro-Ser-Ala-Val) (**SEQ ID NO: 12**).

98. (Currently Amended) The vaccine according to Claim 93 wherein the antigenic synthetic peptide is 124(Lys-Thr-Ala-Gly-Thr-Ala-Pro-Thr-Ala-Gly-Asn-Tyr-Ser) **(SEQ ID NO: 28).**

99. (Currently Amended) The vaccine according to Claim 93 wherein the antigenic synthetic peptide is 126(Ala-Gly-Thr-Ala-Pro-Thr-Ala-Gly-Asn-Tyr-Ser) **(SEQ ID NO: 31).**

100. (Previously Amended) The method of Claim 54, wherein the viral infection is caused by a virus selected from the group consisting of hepatitis A, hepatitis B, hepatitis C, Varicella-Zoster virus, Epstein-Barr virus, Rotaviruses, polio virus, human immunodeficiency virus (HIV), herpes simplex virus type 1, human retroviruses, herpes simplex virus type 2, Ebola virus, cytomegalo viruses, Herpes Simplex viruses, Human cytomegalovirus, Varicella-Zoster Virus, Epstein-Barr Virus, Poxvirus, Influenza viruses, Parainfluenza viruses, Respiratory Syncytial virus, Rhinoviruses, Coronaviruses, Adenoviruses, Measles virus, Mumps virus, Rubella Virus, Human Parvoviruses, Arboviruses, Rabies virus, Enteroviruses, reoviruses, Viruses Causing gastroenteritis Hepatitis Viruses, Filoviruses, Arenaviruses, Papillomaviruses, Polyomaviruses, Human Immunodeficiency viruses, Human Retroviruses, and Spongiform Encephalopathies.

101. (Previously Amended) The method in accordance with Claim 49 comprising administering orally to said mammal an immunogenic amount of a pharmaceutical composition consisting of an antigen in the amount of .1 to 1%.

102. (Previously Amended) A vaccine for the immunization of a mammal against infection by pathogenic organisms consisting of an antigen in the amount of 0.1 to 1% encapsulated within a biodegradable-biocompatible polymeric poly (DL-lactide-co-glycolide) matrix wherein the polymer is un-capped or a blend of uncapped and end-capped polymers.

103. (Original) The vaccine according to Claim 100 wherein the polymer is a blend of end-capped and uncapped polymers.

104. (Original) The vaccine according to Claim 103 wherein the relative ratio between the lactide and glycolide component is within the range of 90/10 to 40/60.

106. (Original) The vaccine according to Claim 102 wherein the antigen is a bacteria or derivatives thereof.

105. (Original) The vaccine according to Claim 103 wherein the relative ratio between the amount of lactide and glycolide component is within the range of 48/52 to 52/48.

107. (Original) The vaccine according to Claim 103 wherein the antigen is a virus or derivatives thereof.

108. (Previously Amended) The vaccine according to Claim 103 wherein the antigen is a parasite or derivative thereof.

109. (Original) The vaccine according to Claim 103 wherein the antigen is a fungus or derivative thereof.

110. (Previously Amended) The vaccine according to Claim 106 wherein the bacteria is selected from the group consisting of Salmonella typhi, Shigella Sonnei, Shigella Flexneri, Shigella dysenteriae, Shigella boydii, Escheria coli, Vibrio cholera, Group D-2, Group E, Group G, Group I, Group 1, Listeria, Erysipelothrix, Mycobacterium, Aerobic pathogenic, Actinomycetales, Enterobacteriaceae, Vibrio, aeromonas, Plesiomonas, Helicobacter, W. succinogenes, Acineto bacter spp., Foavobacterium, Pseudomonas, Legionella, Brucella, Haemophilus, Bordetalla, Mycoplasmas, Gardnerella, Streptobacillus, Spirillum, Calymmatobacterium, Clostridium, Treponema, Borrelia, Leptospira, Anaerobic Gram-negative Bacteria including bacilli and Cocci, Anaerobic gram-Positive Nonsporeforming Bacilli and Cocci, yersinia, staphylococcus, clostridium, Enterococcus, Streptococcus, Aerococcus, Planococcus, Stomatococcus, Micrococcus, Lactoccus, Germella, Pediococcus, Leuconostoc, Bacillus, Neisseria, Branhamella, Coryne bacterium, campylobacter, Arcanobacterium haemolyticum, Rhodococcus spp., Rhodococcus, Group A-4.

111. (Previously Amended) The method of Claim 107, wherein the virus is selected from the group consisting of hepatitis A, hepatitis B, hepatitis C, Varicella-Zoster virus, Epstein-Barr virus, Rotaviruses, polio virus, human immunodeficiency virus (HIV), herpes simplex virus type 1, human retroviruses, herpes simplex virus type 2, Ebola virus, cytomegalo viruses, herpes Simplex viruses, Human cytomegalovirus, Varicella-Zoster Virus, Epstein-Barr Virus, Poxvirus, Influenza viruses, Parainfluenza viruses, Respiratory Syncytial virus, Rhinoviruses, Coronaviruses, Adenoviruses,

Measles virus, Mumps virus, Rubella Virus, Human Parvoviruses, Arboviruses, Rabies virus, Enteroviruses, reoviruses, Viruses Causing gastroenteritis Hepatitis Viruses, Filoviruses, Arenaviruses, Papillomaviruses, Polyomaviruses, Human Immunodeficiency viruses, Human Retroviruses, and Spongiform Encephalopathies.

112. (Previously Amended) An immunostimulating composition comprising encapsulating-microspheres, which may contain a pharmaceutically-acceptable adjuvant, wherein said microspheres having a diameter between 1 nanogram (ng) to 10 microns (um) are comprised of (a) a biodegradable-biocompatible poly (DL-lactide-co-glycolide) as the bulk matrix, wherein the copolymer (lactide to glycolide L/G) ratio for uncapped and end-capped polymer is 100/0 to 99/1 and (b) an immunogenic substance comprising a bacteria, virus, fungus, parasite, or derivative thereof, that serves to elicit the production of antibodies in animal subjects.

113. (Original) An immunostimulating composition according to Claim 112 wherein the amount of said immunogenic substance is within the range of 0.1 to 1.5% based on the volume of said bulk matrix.

114. (Previously Amended) An immunostimulating composition comprising a controlled release microcapsule pharmaceutical formulation for burst-free, sustained, programmable release of an immunogenic substance wherein said immunogenic substance comprises colony Factor Antigen (CFA/II), hepatitis B surface antigen (HgsAg), a mixture thereof, or physiologically similar antigen wherein said immunogenic substance is released over a duration from 1-100 days and is encapsulated within a biodegradable poly(lactide/glycolide) having the uncapped/end capped form of said poly(lactide/glycolide) in the ratio of 100/0 to 1/99, wherein the poly(lactide/glycolide) may contain a pharmaceutically acceptable adjuvant.

115. (Original) An immunostimulating composition according to Claim 113 wherein the relative ratio between the lactide and glycolide component is within the range of 48/52 to 52/48.

116. (Original) An immunostimulating composition according to Claim 113 wherein the size of more than 50% of said microspheres is between 5 to 10 um in diameter by volume.

117. (Currently Amended) An immunostimulating composition according to claim 113 wherein the immunogenic substance is the synthetic peptide representing the peptide fragment beginning with the

amino acid residue 63 through 78 of Pilus Protein CS3, said residue having the amino acid sequence, 63 (Ser-Lys-Asn-Gly-Thr-Val-Thr-Tr~~yyr~~-Ala-His-Glu-Thr-Asn-Asn-Ser-Ala) (SEQ ID NO: 33).

118. (Original) A vaccine comprising an immunostimulating composition of Claim 113 and a sterile, pharmaceutically-acceptable carrier therefore.

119. (Original) A vaccine comprising an immunostimulating composition of Claim 118 wherein said immunogenic substance is Colony Factor Antigen (CFA/II).

120. (Original) A vaccine comprising an immunostimulating composition of Claim 119 wherein said immunogenic substance is hepatitis B surface antigen (HbsAg).

121. (Original) A method for the vaccination against bacterial infection comprising administering to a human, an antibactericidally effective amount of a composition of Claim 118.

122. (Previously Amended) A method according to Claim 121 wherein the bacterial infection is caused by a bacteria selected from the group consisting of Salmonella typhi, Shigella Sonnei, Shigella Flexneri, Shigella dysenteriae, Shigella boydii, Escheria coli, Vibrio cholera, Group D-2, Group E, Group G, Group I, Group 1, Listeria, Erysipelothrix, Mycobacterium, Aerobic pathogenic, Actinomycetales, Enterobacteriaceae, Vibrio, aeromonas, Plesiomonas, Helicobacter, W. succinogenes, Acineto bacter spp., Foavobacterium, Pseudomonas, Legionella, Brucella, Haemophilus, Bordetalla, Mycoplasmas, Gardnerella, Streptobacillus, Spirillum, Calymmatobacterium, Clostridium, Treponema, Borrelia, Leptospira, Anaerobic Gram-negative Bacteria including bacilli and Cocci, Anaerobic gram-Positive Nonsporeforming Bacilli and Cocci, yersinia, staphylococcus, clostridium, Enteroccus, Streptococcus, Aerococcus, Planococcus, Stomatococcus, Micrococcus, Lactoccus, Germella, Pediococcus, Leuconostoc, Bacillus, Neisseria, Branhamella, Coryne bacterium, campylobacter, Arcanobacterium haemolyticum, Rhodococcus spp., Rhodococcus, Group A-4.

123. (Original) A method for the vaccination against viral infection comprising administering to a human an antivirally effective amount of a composition of Claim 108.

124. (Previously Amended) A diagnostic assay for bacterial infections comprising a controlled release microcapsule pharmaceutical formulation for burst-free, sustained, programmable release of said biologically active agent over a duration from 1-100 days, comprising said active agent encapsulated within a biodegradable poly(lactide/glycolide) having the uncapped/end capped form of said poly(lactide/glycolide) in the ratio of 100/0 to 1/99, wherein the poly(lactide/glycolide) may contain a pharmaceutically acceptable adjuvant.

125. (Previously Amended) A method of preparing an immunotherapeutic agent against infections caused by a bacteria comprising the steps of (1) immunizing a plasma donor with a immunostimulating composition according to Claim 52 such that a hyperimmune globulin is produced which contains antibodies directed against the bacteria; (2) separating the hyperimmune globulin and (3) purifying the hyperimmune globulin.

126. (Previously Amended) A method preparing an immunotherapeutic agent against infections caused by a virus comprising the step of immunizing a plasma donor with a immunostimulating composition according to Claim 125 such that hyperimmune globulin is produced which contains antibodies directed against the hepatitis B virus.

127. (Original) An immunotherapy method comprising the step of administering to a subject an immunostimulatory amount of hyperimmune globulin prepared according to Claim 125.

128. (Cancelled)

129. (Original) A method for the protection against infection of a subject by enteropathogenic organisms or hepatitis B virus comprising administering to said subject an immunogenic amount of an immunostimulating composition of Claim 112.

130. (Original) A method according to Claim 127 wherein the immunostimulating composition is administered orally.

131. (Original) A method according to Claim 127 wherein the immunostimulating composition is administered parenterally.

132. (Original) A method according to Claim 127 wherein the immunostimulating composition is administered in four separate doses on day 0, day 7, day 14, and day 28.

133. (Currently Amended) A method according to Claim 114 wherein the immunogenic substance is the synthetic peptide representing the peptide fragment beginning with the amino acid residue 63 through 78 of Pilus Protein CS3 said residue having the amino acid sequence 63 (Ser-Lys-Asn-Gly-Thr-Val-Thr-~~Tryr~~-~~A~~ala-His-Glu-~~T~~thr-~~A~~asn-Asn-Ser-Ala) (**SEQ ID NO: 33**).

134. (Previously Amended) A method for the protection against or therapeutic treatment of bacterial infection in the soft tissue or bone or a mammal comprising administering locally to said mammal a bactericidally-effective amount of the composition of Claim 157, wherein the active agent is an antibiotic.

135. (Original) The method according to Claim 134 wherein the biodegradable poly (DL-lactide-co-glycolide) is a blend of uncapped and end-capped forms having a relative ratio between the amount of lactide and glycolide component within the range of 100/0 to 1/99.

136. (Original) A method according to Claim 135 wherein the bacterial infection is (1) a subcutaneous infection secondary to contaminated abdominal surgery, (2) an infection surrounding prosthetic devices and vascular grafts, (3) ocular infections, (4) topical skin infections, (5) orthopedic infections, including osteomyelitis, and (6) oral infections.

137. (Original) The method according to Claim 136 wherein the oral infections are pericoronitis or periodontal disease.

138. (Original) The method according to Claim 135 wherein the administration is effected prior to infection.

139. (Original) The method according to Claim 135 wherein the administration is effected subsequent to infection.

140. (Original) The method according to Claim 135 wherein said animal is a human.

141. (Original) The method according to Claim 135 wherein said animal is a nonhuman.

142. (Previously Amended) The method in accordance with Claim 135 comprising applying to the soft tissue or bone tissue of said animal a bactericidally-effective amount of said antibiotic selected from the group consisting of a beta-lactam, aminoglycolide, polymyxin-b, Amphotericin B, Aztreonam, cephalosporins, chloramphenicol, fusidans, lincosamides, macrolides, methronidazole, nitro-furation, Imipenem/cilastin, quinolones, rifampin, polyenes, tetracycline, sulfonamides, trimethoprim, vancomycin, teicoplanin, imidazoles, and erythromycin, encapsulated within a biodegradable poly (DL-lactide-co-glycolide) polymeric matrix, wherein the amount of the lactide and glycolide (L/G) component is within the range of 48/52 to 52/48 based on the weight of said polymeric matrix which is present in the amount of from 40 to 95 percent, resulting in the controlled release of a bacteriacidal amount of the said antibiotic over a period of from 1 to 100 days.

143. (Previously Amended) The method of Claim 142 wherein the polymeric matrix consists of a poly (DL-lactide-co-glycolide) wherein the relative ratio between the amount of lactide and glycolide (L/G) component is within the range of 48/52 to 52/48.

144. (Previously Amended) The method of Claim 142 wherein the bacterial infection is caused by a resistant or non-resistant bacteria selected from the group consisting of Enterobacteriaceae; Klebsiella sp.; Bacteroides sp. Enterococci; Proteus sp.; Streptococcus sp.; Staphylococcus sp.; Pseudomonas sp.; Neisseria sp.; Pedptostreptococcus sp.; Fusobacterium sp.; Actinomyces sp.; Mycobacterium sp.; Listeria sp.; Corynebacterium sp.; Propionibacterium sp.; Actinobacillus sp.; Aerobacter sp.; Borrelia sp.; Campylobacter sp.; cytophaga sp.; Pasteurella sp.; Clostridium sp.; Enterobacter aerogenes, Peptococcus sp.; Proteus vulgaris, Proteus morganii, Staphylococcus aureus, Streptococcus pyogenes, Actinomyces sp.; Campylobacter fetus, and Legionella pneumophila, ampicillin-resistant strain of S. aureus, and methicillin-resistant strain of S. aureus.

145. (Previously Amended) The method of Claim 142 wherein the antibiotic is selected from the group consisting of a beta-lactam, aminoglycolide, polymyxin-B, amphotericin B, aztreonam, cephalosporine, chloramphenicol, fusidans, lincosamides, macrolides, methronidazole, nitro-furantoin, Imipenem/cilastin, quinolones, rifampin, polyenes, tetracycline, sulfonamides, trimethoprim, vancomycin, teicoplanin, imidazoles, and erythromycin.

146. (Original) The method of Claim 145 wherein the beta-lactam is cephalosporin.



147. (Original) The method of Claim 145 wherein the beta-lactam is penicillin.
148. (Original) The method of Claim 145 wherein the aminoglycolide is gentamicin.
149. (Original) The method of Claim 145 wherein the aminoglycolide is amikacin.
150. (Original) The method of Claim 145 wherein the aminoglycolide is tobramycin.
151. (Original) The method of Claim 145 wherein the aminoglycolide is kanamycin.
152. (Original) The method of Claim 145 wherein the beta-lactam is an ampicillin.
153. (Previously Amended) The method of Claim 152 wherein the polymeric matrix consists of a poly (DL-lactide-co-glycolide) wherein the relative ratio between the amount of lactide and glycolide (L/G) component is within the range of 48/52 to 58/42.
154. The method of Claim 152 wherein the ampicillin is present in an amount of from 5 to 60 percent and the amount of polymeric matrix is from 40 to 95 percent.
155. (Previously Amended) The process of Claim 157, wherein said humans are suffering from diseases and/or ailments from the group consisting of: viral infections; bacterial infections; fungal infections; parastic infections and more specific diseases and/or ailments; such as as, aids; alzheimer's dementia; angiogenesis diseases; aphthour ulcers in AIDS patients; asthma; atopic dermatitis; psoriasis; basal cell carcinoma; benign prostatic hypertrophy; blood substitute; blood substitute in surgery patients; blood substitute in trauma patients; breast cancer; breast cancer; cutaneous & metastatic; cachexia in AIDS; campylobacter infection; cancer; pneumonia; sexually transmitted diseases (STDs); cancer; viral dieases; candida albicians in AIDS and cancer; candidiasis in HIV infection; pain in cancer; pancreatic cancer; parkinson's disease; peritumoral brain edema; postoperative adhesions (prevent); proliferative diseases; prostate cancer; ragweed allergy; renal disease; restenosis; rheumatoid arthritis; rheumatoid arthritis; allergies; rotavirus infection; scalp psoriasis; septic shock; small-cell lung cancer; solid tumors; stroke; thrombosis; type I diabetes; type I diabetes w/kidney transplants; type II diabetes; veseral leishmaniasis; malaria; periodontal or gum disease; cardiac rhythm disorders; central nervous system diseases; central nervous system disorders; cervical dystonia (spasmodic torticollis); choridal neovascularization; chronic hepatitis c, b, and a;

colitis associated with antibiotics, colorectal cancer; coronary artery thrombosis; cryptosporidiosis in AIDS; cryptosporidium parvum diarrhea in AIDS; cystic fibrosis; cytomegalovirus disease; depression; social phobias; panic disorder; diabetic complications; diabetic eye disease; diarrhea associated with antibiotics; erectile dysfunction; genital herpes; graft-vs host disease in transplant patients; growth hormone deficiency; head and neck cancer; head trauma; stroke; heparin neutralization after cardiac bypass; hepatocellular carcinoma; HIV; HIV infection; huntington's disease; CNS diseases; hypercholesterolemia; hypertension; inflammation; inflammation and angiogenesis; inflammation in cardiopulmonary bypass; influenza; migraine head ache; interstitial cystitis; kaposi's sarcoma; kaposi's sarcoma in AIDS; lung cancer; melanoma; molluscum contagiosum in AIDS; multiple sclerosis; neoplastic meningitis from solid tumors; non-small cell lung cancer; organ transplant rejection; osteoarthritis; rheumatoid arthritis; osteoporosis; drug addiction; shock; ovarian cancer; Amebiasis; Babesiasis; Chagas' disease (Trypanosoma cruzi); Cryptosporidiosis; Cysticercosis; Fascioliasis; Filariasis; Echinococcosis; Giardiasis; Leishmaniasis; Malaria; Paragonimiasis; Pneumocystosis; Schistosomiasis; Strongyloidiasis; Toxocariasis; Toxoplasmosis; Trichinellosis; Trichomoniasis; yeast infection; and pain.

156. (Original) A vaccine for prepared from the composition of Claim 1 to prevent the occurrence in humans of diseases and/or ailments comprising viral infections; bacterial infections; fungal infections; parastic infections and more specific diseases and/or ailments; such as as, aids; alzheimer's dementia; angiogenesis diseases; aphthour ulcers in AIDS patients; asthma; atopic dermatitis; psoriasis; basal cell carcinoma; benign prostatic hypertrophy; blood substitute; blood substitute in surgery patients; blood substitute in trauma patients; breast cancer; breast cancer; cutaneous & metastatic; cachexia in AIDS; campylobacter infection; cancer; pneumonia; sexually transmitted diseases (STDs); cancer; viral dieases; candida albicians in AIDS and cancer; candidiasis in HIV infection; pain in cancer; pancreatic cancer; parkinson's disease; peritumoral brain edema; postoperative adhesions (prevent); proliferative diseases; prostate cancer; ragweed allergy; renal disease; restenosis; rheumatoid arthritis; rheumatoid arthritis; allergies; rotavirus infection; scalp psoriasis; septic shock; small-cell lung cancer; solid tumors; stroke; thrombosis; type I diabetes; type I diabetes w/kidney transplants; type II diabetes; veseral leishmaniasis; malaria; periodontal or gum disease; cardiac rhythm disorders; central nervous system diseases; central nervous system disorders; cervical dystonia (spasmodic torticollis); choridal neovascularization; chronic hepatitis c, b, and a; colitis associated with antibiotics, colorectal cancer; coronary artery thrombosis; cryptosporidiosis in AIDS; cryptosporidium parvum diarrhea in AIDS; cystic fibrosis; cytomegalovirus disease; depression; social phobias; panic disorder; diabetic complications; diabetic eye disease; diarrhea

associated with antibiotics; erectile dysfunction; genital herpes; graft-vs host disease in transplant patients; growth hormone deficiency; head and neck cancer; head trauma; stroke; heparin neutralization after cardiac bypass; hepatocellular carcinoma; HIV; HIV infection; huntington's disease; CNS diseases; hypercholesterolemia; hypertension; inflammation; inflammation and angiogenesis; inflammation in cardiopulmonary bypass; influenza; migraine head ache; interstitial cystitis; kaposi's sarcoma; kaposi's sarcoma in AIDS; lung cancer; melanoma; molluscum contagiosum in AIDS; multiple sclerosis; neoplastic meningitis from solid tumors; non-small cell lung cancer; organ transplant rejection; osteoarthritis; rheumatoid arthritis; osteoporosis; drug addiction; shock; ovarian cancer; Amebiasis; Babesiasis; Chagas' disease (*Trypanosoma cruzi*); Cryptosporidiosis; Cysticercosis; Fascioliasis; Filariasis; Echinococcosis; Giardiasis; Leishmaniasis; Malaria; Paragonimiasis; Pneumocystosis; Schistosomiasis; Strongylodiasis; Toxocariasis; Toxoplasmosis; Trichinellosis; Trichomoniasis; yeast infection; and pain.

157. (Previously Added) A process of treating a human with an active agent comprising administering a pharmaceutically effective amount of a controlled release microcapsule pharmaceutical formulation for burst-free, sustained, programmable release of said biologically active agent over a duration from 1-100 days, comprising said active agent encapsulated within a biodegradable poly(lactide/glycolide) having the uncapped/end capped form of said poly(lactide/glycolide) in the ratio of 100/0 to 1/99, wherein the poly(lactide/glycolide) may contain a pharmaceutically acceptable adjuvant.

158. (Previously Added) The process of claim 42, wherein the biologically active agent is a polypeptide.

159. (Previously Added) The process of claim 158, wherein said polypeptide is any of the vaccine agents against enterotoxigenic *E. coli* selected from the group consisting of CFA/I, CFA/II, CS1, CS3, CS6, and CS17, ETEC-related enterotoxins, and combinations thereof.

160. (Previously Added) The process of claim 159, wherein said polypeptide is CFA/I.

161. (Currently Amended) The process of claim 160, wherein said CFA/I polypeptide is synthetic and is selected from the group of synthetic peptides containing the CFA/I pilus protein T-cell epitopes (Starting Sequence # given)

4(Asn-Ile-Thr-Val-Thr-Ala-Ser-Val-Asp-Pro) (SEQ ID NO: 8),  
 8(Thr-Ala-Ser-Val-Asp-Pro-Val-Ile-Asp-Leu) (SEQ ID NO: 9),  
 12(Asp-Pro-Val-Ile-Asp-Leu-Leu-Gln-Ala-Asp) (SEQ ID NO: 10),  
 15(Ile-Asp-Leu-Leu-Gln-Ala-Asp-Gly-Asn-Ala) (SEQ ID NO: 11),  
 20(Ala-Asp-Gly-Asn-Ala-Leu-Pro-Ser-Ala-Val) (SEQ ID NO: 12),  
 26(Pro-Ser-Ala-Val-Lys-Leu-Ala-Tyr-Ser-Pro) (SEQ ID NO: 13),  
 72(Leu-Asn-Ser-Thr-Val-Gln-Met-Pro-Ile-Ser) (SEQ ID NO: 14),  
 78(Met-Pro-Ile-Ser-Val-Ser-Trp-Gly-Gly-Gln) (SEQ ID NO: 15),  
 87(Gln-Val-Leu-Ser-Thr-Thr-Ala-Lys-Glu-Phe) (SEQ ID NO: 16),  
 126(Ala-Gly-Thr-Ala-Pro-Thr-Ala-Gly-Asn-Tyr) (SEQ ID NO: 17), and  
 133(Gly-Asn-Tyr-Ser-Gly-Val-Val-Ser-Leu-Val) (SEQ ID NO: 18), and mixtures thereof;  
 synthetic peptides containing CFA/I pilus protein B-cell (antibody) epitopes (starting sequence given)  
 3(Lys-~~Asn~~-Ile-Thr-Val-Thr-Ala-Ser-Val) (SEQ ID NO: 19),  
 11(Val-Asp-Pro-Val-Ile-Asp-Leu-Leu-Gln-Ala-Asp) (SEQ ID NO: 20),  
 22(Gly-Asn-Ala-Leu-Pro-Ser-Ala-Val) (SEQ ID NO: 32),  
 32(Ala-Tyr-Ser-Pro-Ala-Ser-Lys-Thr-Phe-Lys-Thr-Phe-Glu-Ser-Tyr-Arg-Val)  
 (SEQ ID NO: 21),  
 32(Ala-Tyr-Ser-Pro-Ala-Ser-Lys-Thr-Phe) (SEQ ID NO: 22),  
 38(Lys-Thr-Phe-Glu-Ser-Tyr-Arg-Val) (SEQ ID NO: 23),  
 66(Pro-Gln-Leu-Thr-Asp-Val-Leu-Asn-Ser) (SEQ ID NO: 24),  
 93(Ala-Lys-Glu-Phe-Glu-Ala-Ala-Ala) (SEQ ID NO: 25),  
 124(Lys-Thr-Ala-Gly-Thr-Ala-Pro-Thr) (SEQ ID NO: 26),  
 127(Gly-Thr-Ala-Pro-Thr-Ala-Gly-Asn-Tyr-Ser) (SEQ ID NO: 27),  
 124(Lys-Thr-Ala-Gly-Thr-Ala-Pro-Thr-Ala-Gly-Asn-Thr-Ser) (SEQ ID NO: 28), and  
 mixtures thereof; and  
 synthetic peptides containing CFA/I pilus protein T-cell and B-cell (antibody) epitopes (starting  
 sequence # given)

3(Lys-Asn-Ile-Thr-Val-Thr-Ala-Ser-Val-Asp-Pro) (SEQ ID NO: 29),  
 8(Thr-Ala-Ser-Val-Asp-Pro-Val-Ile-Asp-Leu-Leu-Gln-Ala-Asp)  
 (SEQ ID NO: 30),  
 11(Val-Asp-Pro-Val-Ile-Asp-Leu-Leu-Gln-Ala-Asp) (SEQ ID NO: 20),  
 20(Ala-Asp-Gly-Asn-Ala-Leu-Pro-Ser-Ala-Val) (SEQ ID NO: 12),  
 124(Lys-Thr-Ala-Gly-Thr-Ala-Pro-Thr-Ala-Gly-Asn-Tyr-Ser) (SEQ ID NO: 28), and

126(Ala-Gly-Thr-Ala-Pro-Thr-Ala-Gly-Asn-Tyr-Ser) (SEQ ID NO: 31), and mixtures thereof.

162. (Previously Added) The process of claim 42, wherein release profiles of variable rates and duration are achieved by blending said uncapped and said end-capped forms of poly(lactide/glycolide) polymer in different ratios within the same microcapsule.

163. (Previously Added) The process of claim 42, wherein when the ratio of uncapped polymer to end-capped polymer is increased, the release rate of the active ingredient increases.

164. (Previously Added) The process of claim 42, wherein the uncapped polymer and end-capped polymer is present in ratios ranging from 100/0 to 1/99, respectively.

165. (Previously Added) The process of claim 42, wherein the uncapped polymer and end-capped polymer is present in ratios ranging from 90/10 to 40/60.

166. (Previously Added) The process of claim 42, wherein the relative ratio between the lactide and glycolide (L/G) component is within the range of 40/60 to 0/100.

167. (Previously Added) The process of claim 42, wherein the relative ratio between the lactide and glycolide (L/G) component is within the range of 90/10 to 40/60.

168 (Previously Added) The process of claim 42, wherein the relative ratio between the lactide and glycolide (L/G) component is within the range of 48/52 to 52/48.